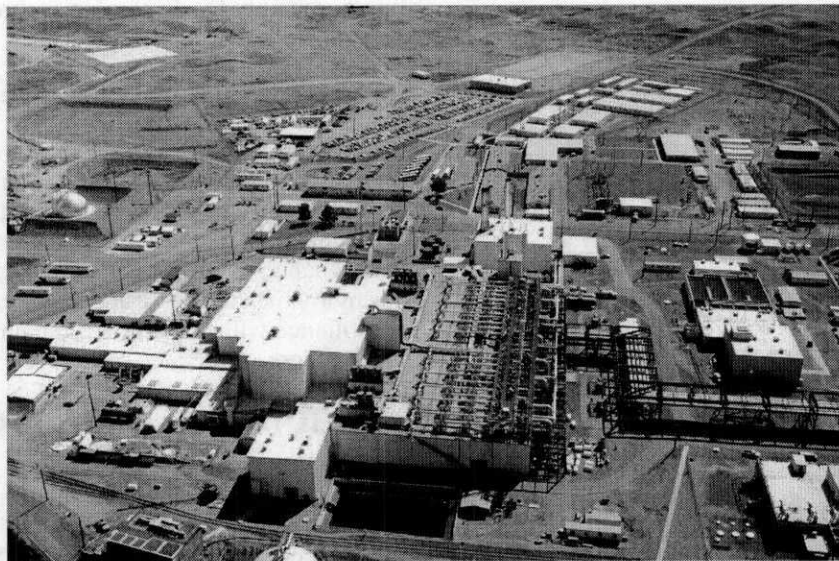
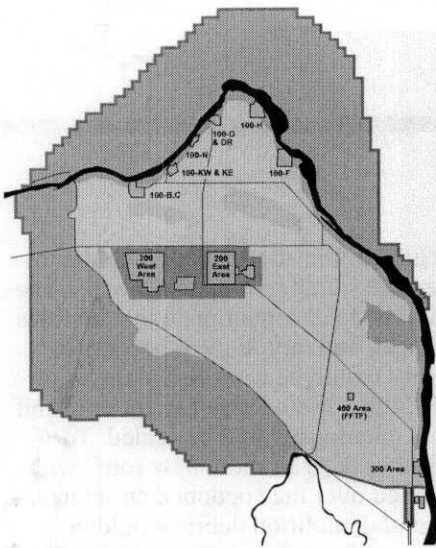


Fact Sheet

Next Steps for the 105-N Reactor Facility and the 109-N Heat Exchanger Building

U.S. Department of Energy - Washington State Department of Ecology - U.S. Environmental Protection Agency



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The U. S. Department of Energy, Washington State Department of Ecology, and the U. S. Environmental Protection Agency (Tri-Party agencies) would like your input on the *Engineering Evaluation/Cost Analysis for 105-N Reactor Facility and 109-N Heat Exchanger Building*, DOE/RL-2004-046. The EE/CA evaluates alternatives for interim storage of the reactor building and adjacent heat exchanger building at the Hanford Site N Area.

Background

The 100-N Area, containing N Reactor and supporting facilities, is located at the northern end of the Hanford Site in southeastern Washington state, along a section of the Columbia River known as the Hanford Reach. Construction of the N Reactor began in December 1959 and was completed in October 1963. The reactor complex comprises two major facilities: the 105-N Reactor Building, which houses the

reactor core and associated support structures, and the 109-N Heat Exchanger Building, which houses steam generators, primary coolant pumps, and turbines. The N Reactor served a dual mission, producing special nuclear materials and providing steam to generate electricity. N Reactor operated from 1963 until 1987, at which time it was placed in standby. In 1991, DOE decided the reactor would not be restarted and N Reactor and all support facilities were deactivated over the next several years.

Public Comment

The Tri-Party agencies want your feedback on the 105-N and 109-N facilities EE/CA.

The public comment period is:
Oct 20 - Nov 19, 2004

The EE/CA evaluates options for interim safe storage of the 105-N and 109-N facilities. Deactivation of the facilities was completed in 1998. It included shutting down and isolating operating systems, cleaning up radiological and hazardous materials, cataloging remaining unattached hazardous materials, sealing access areas to prevent animal intrusion, and securing the facility. Portions of the facilities remain controlled as high radiation areas and airborne radiation areas.

Fact Sheet

What is an Engineering Evaluation/Cost Analysis?

An Engineering Evaluation/Cost Analysis (EE/CA) evaluates feasible and cost-effective alternatives for proposed removal actions, and recommends a specific removal action under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

A Removal Action is a discrete, short-term action taken to protect public health, welfare, or the environment from an actual or potential release of hazardous substances. The removal action proposed for 105-N and 109-N are not time-critical. The EE/CA identifies the goals of the removal action, identifies and evaluates three removal action alternatives, and recommends a given alternative for the facilities.

What cleanup actions were evaluated?

The removal action for 105-N and 109-N must protect human health and the environment and meet the removal action objectives identified in the evaluation. Based on these criteria, the following removal alternatives were evaluated:

No action

Under the no action alternative, Hanford Site access controls would be maintained to help prevent worker or public entry to the contaminated facilities. No other specific controls would be established for the facilities.

Interim safe storage

Also called cocooning, the goal of the alternative would be to place the facilities in interim safe storage for up to 64 years. The first step in the process would be to decontaminate the facilities by removing physical, chemical, and radiological barriers to demolition. Then, each facility would be demolished down to shield walls surrounding the highly radioactive reactor core and heat exchangers. All external openings would be sealed. To protect the facilities from further deterioration, new roofs with a 75-year life would be installed over the cocooned structures. All contaminated materials and demolition debris would be transported to the Environmental Restoration Disposal Facility or other facility for disposal in accordance with waste acceptance criteria.

Long-term surveillance and maintenance

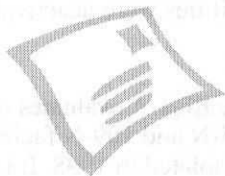
The objective of the long-term surveillance and maintenance alternative would be to sustain the facilities in a safe condition for up to 64 years until final disposition. The facilities would not be decontaminated. To the extent possible, surveillance and maintenance would be performed to minimize the potential for an environmental release and to protect workers while maintaining compliance with applicable state and federal regulations and DOE orders.

What is the preferred alternative?

The Tri-Party agencies have selected interim safe storage as the preferred alternative for 105-N and 109-N. The estimated cost for the recommended alternative is \$77 million. The alternative is recommended based on its overall ability to protect human health and the environment.

How you may become involved

The 30-day public comment period for the 105-N and 109-N facilities EE/CA is Oct. 20-Nov. 19, 2004. The Tri-Party agencies would like your feedback on this document and will consider all comments before finalizing it. **To request a copy of the document, or to submit comments in a written or electronic format, please contact:**



Chris Smith
U.S. Department of Energy
Richland Operations Office
P.O. Box 550 (A3-04)
Richland, WA 99352
Phone: (509) 372-1544
Fax: (509) 373-0726
Douglas_C_Chris_Smith@rl.gov

To request the Tri-Party agencies to arrange a public meeting on the 105-N and 109-N facilities EE/CA, please contact Chris Smith, above, on or before October 30, 2004.